



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

September 24, 2012

Via E-mail

Mr. Richard P. Shea
Senior Vice President and
Chief Financial Officer
Momenta Pharmaceuticals, Inc.
675 West Kendall Street,
Cambridge, MA 02142

Re: Momenta Pharmaceuticals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed February 28, 2012
File No. 000-50797

Dear Mr. Shea:

We have completed our review of your filings. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filings and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Joel Parker

Joel Parker
Accounting Branch Chief